SMALL CALIBER GUIDED BULLET

TECHNOLOGY READINESS LEVEL: 5

PRELIMINARY PROTOTYPES HAVE BEEN DEMONSTRATED IN RELEVANT, OPERATIONAL ENVIRONMENTS

US PATENT # 7,781,709

TECHNOLOGY SUMMARY

Self guided projectiles such as bullets that can be fired from small caliber weapons (around .50 caliber or less) are desirable due to the increased accuracy of hitting a target from a long range (about 2000 meters or more).

Sandia's technology is a self-guided projectile utilizing a laser designated target and is configured to be fired from a small caliber smooth bore gun barrel. The nose of the bullet is equipped with an optical sensor along with a counterbalancing mass and stabilizing stakes. Guidance and control electronics and electromagnetic actuators assist in operating the control fins and also create outputs from the optical sensors in order to steer the projectile to the target. The current testing results have demonstrated feasibility of the design. We are currently seeking commercial partners who may assist in further developing and deploying our design.

TECHNOLOGY INQUIRY?

For more information or licensing opportunities contact at

ip@sandia.gov

Refer to SD # 7675

or visit

https://ip.sandia.gov

POTENTIAL APPLICATIONS

- Military
- Law Enforcement
- Recreation

TECHNOLOGICAL BENEFITS

- Reduced Cost
- Aerodynamically Stabilized Projectile
- Laser target designation & navigation sensor for increased accuracy
- Experimental flight tests can be conducted using commercial off-the-shelf components

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